

1745

PTO/SB/21 (01-03)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/052,004
	Filing Date	1/17/2002
	First Named Inventor	Anthony C. Zuppero
	Art Unit	1745
	Examiner Name	
Total Number of Pages in This Submission	Attorney Docket Number	22122878-10

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Firm or Individual	Eunhee Park, Esq. (Reg. No. 42,976)	
Signature	<i>Eunhee Park</i>	
Date	March 26, 2003	

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[Docket No.: 22122878-10]

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Applicant: Neokismet, L.L.C
Application No.: 10/052,004
U.S. Filing Date: January 17, 2002
Title: Electron-Jump Chemical Energy Converter
Group Art Unit: 1745
Examiner: Not Yet Assigned

Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

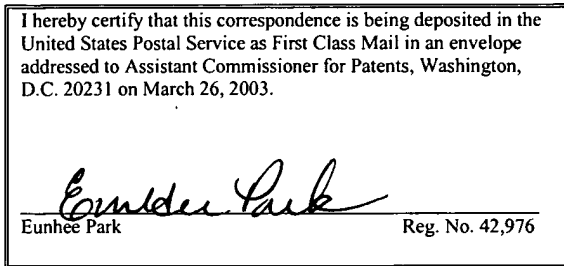
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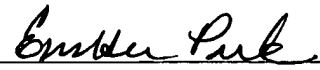
1. In accordance with the duty of disclosure under 37 C.F.R. § 1.56 and in conformance with the procedures of 37 C.F.R. §§ 1.97 and 1.98 and M.P.E.P. § 609, attorneys for the Applicant hereby bring the following references to the examination of the above-identified application the attention of the Examiner. The references are listed on the attached modified PTO SB/08B forms. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.
2. This statement is being filed under 37 C.F.R. § 1.97(b)(3) before the mailing of a first Office Action on the merits. Copies of the references are enclosed.

3. No fee is believed necessary with the filing of these documents. If a fee is deemed necessary, we authorize the Commissioner for Patents to charge Deposit Account No.: 02-0393.

Dated: March 26, 2003

Respectfully submitted,




Eunhee Park
Reg. No. 42,976
Baker & McKenzie
805 Third Avenue
New York, New York 10022
Telephone (212) 751-5700
Facsimile (212) 759-9133



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		Application Number	10/052,004		
		Filing Date	1/17/2002		
		First Named Inventor	Anthony C. Zuppero		
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	1	DANIEL J. AUERBACH, Hitting the Surface Softly, www.sciencemag.org, Vol 294 Science, December 21, 2001, pp. 2488-2489.	
	2	M.D CUMMINGS AND A.Y ELE ZZABI, Ultrarfast impulsive excitation of coherent longitudinal acoustic phonon oscillations in highly photoexcited InSb, 2001 American Institute of Physics, Volume 79, Number 6, August 6, 2001.	
	3	J.W. GADZUK, Resonance-Assisted Hot Electron Femtochemistry at Surfaces, National Institute of Standards and Technology, Gaithersburg, Maryland 20899, Physical Review Letters, Volume 76, Number 22, May 27, 1996.	
	4	BRIAN GERGEN, HERMAN NIENHAUS, W., HENRY WEINBERG, ERIC W. McFARLAND, Chemically Induced Electronic Excitations at Metal Surfaces, www.sciencemag.org, Vol 294, December 21, 2001, Pgs 2521-2523.	
	5	H.HOU, Y.HUANG, S.J. GUILDING, C.T RETTNER, D.J. AUERBACH, A.M. WOODTKE, Enhanced Reactivity of Highly Vibrationally Excited Molecules on Metal Surfaces, www.sciencemag.org, Vol 284, June 4, 1999, pgs. 1647-1650	
	6	Y.HUANG, C.T RETTNER, D.J. AUERBACH, A.M. WOODTKE, Vibrational Promotion of Electron Transfer, sciencemag.org, Vol 290, October 6, 2000, pgs. 111-114.	
	7	STEVEN p. LEWIS, ANDREW M. RAPPE, Controlling adsorbate vibrational lifetimes using superlattices, 2001 The American Physical Society, Physical Review B, Volume 63, 085402.	
	8	HENRY WEINBERG, ERIC W. McFARLAND, A. MAJUNDAR, B. GERGEN, HERMAN NIENHAUS, W., H.S BERGH, Electron-Hole Pair Creation at Ag and Cu Surfaces by Adsorption of Atomic Hydrogen and Deuterium, 1999 The American Physical Society, Physical Review Letters, Volume 82, November 2, 1999, pp. 446-449.	
	9	HENRY WEINBERG, ERIC W. McFARLAND, A. MAJUNDAR, B. GERGEN, HERMAN NIENHAUS, W., H.S BERGH, Direct detection of electron-hole pairs generated by chemical reactions on metal surfaces, 2000 Elsevier Science B.V., Surface Science, pgs. 335-342.	
	10	XIAOFENG, FAN, GEHONG, CHRIS LABOUNTY, AND BOWERS, JOHN E., CROKE, EDWARD, AHN, CHANNING C., HUXTABLE, SCOTT, MAJUMDAR, ARUN, SHAKOURI, ALI; SiGe/Si superlattice microcoolers; Applied Physics Letters, Volume 78, Number 11, 12 March 2001, Pg: 1580-1582.	
	11	FRIEDMAN, L., SUN G., SOREF, R.A.; SiGe/Si THz laser based on transitions between inverted mass light-hole and heavy-hole subbands; Applied Physics Letters, Volume 78, Number 4, 22 January 2001; Pg: 401-403.	

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		Filing Date	1/17/2002		
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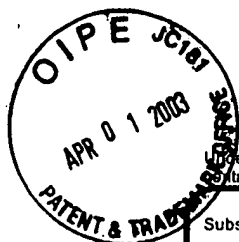
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	12	HARRISON, P., SOREF, R.A.; Population-inversion and gain estimates for semiconductor TASER.	
	13	HARRISON, P., SOREF, R.A.; Room temperature population inversion in SiGe TASER design.	
	14	HOHLFELD, J., WELLERSHOFF, S.-S, J., GUDDE, U., CONRAD, V., JAHNKE, E., MATTIAS; Electron and lattice dynamics following optical excitation of metals; Chemical Physics 251(2000). Pg: 237-258.	
	15	HOU, H., HUANG, Y., GOULDING, S.J., RETTER, C.T., AUERBACH, D.J., WODRKE, A.M.; Direct multiquantum relaxation of highly vibrationally excited NO in collisions with O/Cu(111); Journal of Chemical Physics; Volume 110, Number 22; 8 June 1999; Pgs: 10957-10963.	
	16	JONGMA, RIENK T., WODTKE, ALEC M.; Fast multiquantum vibrational relaxation of highly vibrationally excited O2; Journal of Chemical Physics; Volume 111, Number 24; 22 December 1999; Pgs: 10957-10963.	
	17	KAWAKAMI, R.K., ROTENBERG, E., CHOI, HYUK J., ESCORCIA-APARICIO, ERNESTO J., BOWEN, M.O., WOLFE, J.H., ARENHOLZ, E., ZHANG, Z.D., SMITH, N.V., QIU, Z.Q., Quantum-well states in copper thin films; Letters to nature; Volume 398; 11 March 1999; www.nature.com.	
	18	MD. GOLAM MOULA, SURGIO WAKO, GENGYU CAO, IVAN KOBAL, YUICHI OHNO, TATSUO MATSUSHIMA; Velocity distribution of desorbin CO2 in CO oxidation ion Pd(110) under steady-state conditions; applied surface science; 169-170 (2001); Pgs: 268-272.	
	19	JEAN-PHILIPPE MULET, KARL JOULAIN, REMI CARMINATI, AND JEAN- JACQUES GREFFET; Nanoscale radiative heat transfer between a small particle and a plane surface; Applied Physics Letters; Volume 78, Number 19; 7 May 2001; Pgs: 2931-2933.	

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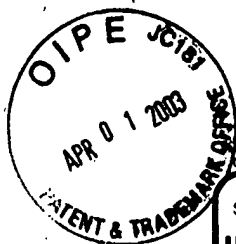
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	20	H. NIEHAOUS et al., " Direct detetion of electron-hole pairs generated by chemical reaction on metal surfaces", Surface Science 445 (2000), Pages 3350342.	
	21	H. NIEHAUS et al., " Selective H atom sensores using ultrathin Ag/Si Schottky diodes", Applied Physics Letters, Volume 74, Number 26, 28 June 1999, Pages 4046-4048.	
	22	J.J PAGGEL et al., "Quantum-Well States as a Fabry-Perot Modes in a Thin-Film Electron Interferometer", www.Sciencemag.org Science Vol 284 12 March 1999, Pages 1709-1711.	
	23	J.J PAGGEL et al., " Quasiparticle Lifetime in Macroscopically Uniform Ag/Fe(100) Quantum Wells", Physical Review Letters, Volume 81, Number 25, 21 December 1998, Pages 5632-5635.	
	24	J.J PAGGEL et al., " Quantum well photoemission from atomically uniform Ag films: determination of electronic band structure and quasi particle lifetime in Ag(100), Aplied Surface Science 162-163(2000), Pages 78-85.	
	25	N.PONTIUS et al., " Size-dependent hot-electron dynamics in small Pdn-cluster", Journal of Chemical Physics, V1olume 115, Number 22, 8 December2001, Pages 10479-10483.	
	26	R.A SOREL et al., "Terahertz gain in a SiGe/Si quantum staircase utilizing the heavy-hole inverted effective mass, Applied Phusics Letters, Volume 79, Number 22, 26 November 2001, Pages 3639-3641.	

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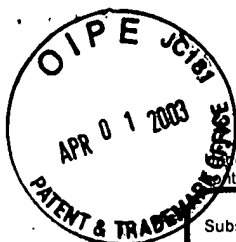
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	27	G. SUN et al., "Phonon-pumped terahertz gain in n-type GaAs/AlGaAs Superlattices, Applied Physics Letters, Volume 78, Number 22, Pages 3520-3522.	
	28	V. P. ZHDANOV et al., "Substrate-mediated photoinduced chemical reactions on ultrathin metal films", Surface Science 432 (1999), Pages L599-L603.	
	29	H. PARK et al., "Nanomechanical oscillations in a single-C60 transistor", Letters to nature, Volume 407, September 7, 2000, www.nature.com, Pages 57-60.	
	30	G. SUN et al., "Phonon Pumped SiGe/Si Interminiband Terahertz Laser", Pages 1-11.	
	31	G. SUN et al., "Phonon-pumped terahertz gain in n-type GaAs/Al GaAs superlattices", Applied Physics Letters, Volume 78, Number 22, 28 May 2001, Pages 3520-3522.	
	32	K. SVENSSON et al., "Dipole Active Vibrational Motion in the Physisorption Well", Physical Review Letters, Volume 78, Number 10, 10 March 1997, Pages 2016-2019.	
	33	R. D. VALE et al., "The Way Things Move: Looking Under the Hood of Molecular Motor Proteins", Science, Volume 288, 7 April 2000, www.sciencemag.org, Pages 88-95.	
	34	W. XU et al., "Electrical generation of terahertz electromagnetic pulses by hot-electrons in quantum wells, Superlattices and Microstructures, Volume 22, November 1, 1997, Pages 25-29.	
	35	G. SUN, R.A. Soref, J.B. KHURGIN; "Phonon Pumped SiGe/Si Interminiband Terahertz Laser"	

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	36	P. ARMOUR et al., "Hot-electron transmission through metal-metal interfaces: a study of Au/Fe/Au trilayers in GaAs substrates", Applied Surface Science 123/124 (1998), Pages 412-417.	
	37	C.D. BEZANT et al., "Intersubband relaxation lifetimes in p-GaAs/AlGaAs quantum wells below the LO-phonon energy measured in a free electron laser experiment", Vacuum Solutions Online, Semicond. Sci. Technol. 14 No. 8 (August 1999) L25-L28, PI: S0268-1242(99)03669-X.	
	38	L. BURGI et al., "Confinement of Surface State Electrons in Fabry-Perot Resonators", Physical Review Letters, Volume 81, Number 24, 14 December 1998, Pages 5370-5373.	
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	40	CHIANG, T.-C., "Photoemission studies of quantum well states in thin films", Surface Science Reports 39 (2000) pp 181-235	
	41	DE PAULA, A. et al, "Carrier capture processes in semiconductor superlattices due to emission of confined phonons", J. Appl. Phys. 77 (12), 1995 pp 6306-6312.	

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